

5.2 Wetlands

Many features of the roadway design contribute to avoiding and minimizing effects to wetlands. Filling 1.66 acres of wetlands is unavoidable and an additional 0.64 acres will be disturbed temporarily. Mitigation for these effects will come from the Springbrook Creek Wetland and Habitat Mitigation Bank.

Wetlands are a valuable environmental resource. In addition to providing vital habitat for many plants and animals, wetlands help to moderate stormwater flows by slowing and retaining floodwater during periods of rain, thereby minimizing downstream flooding. Wetlands can also clean water of material such as dirt and oil.

What wetlands are located in the study area?

The I-405 Project Team identified twenty-nine wetlands totaling 19.4 acres within the Renton Nickel Improvement Project study area. The Springbrook Creek basin contains the highest number of wetlands and the largest total wetland area with fifteen wetlands covering 15.39 acres. The remaining fourteen wetlands totaling 4.01 acres occur along SR 167 and are associated with Panther Creek. No wetlands occur in the portion of the Cedar River basin that lies within the study area.

How will project construction temporarily affect wetlands?

Construction will temporarily affect some wetland areas and wetland buffers during clearing activities to accommodate the project improvements. WSDOT will also need to place temporary fill in some wetlands and buffers to allow enough space for construction. It is anticipated that 0.64 acres of wetland will be disturbed temporarily.

These construction disturbances will result in a short-term loss of wetland functions because wetland and upland vegetation will need to be cleared. After the project is complete, these areas will be restored and replanted with appropriate vegetation. Habitat functions will be temporarily reduced for these wetlands, but these functions will return as new trees, shrubs, and emergent



Wetland mitigation will improve local area wetlands

Please refer to the Renton Nickel Improvement Project Wetland Discipline Report in Appendix Z for a complete discussion of the wetlands analysis.

plants become established. Where vegetation is cleared or trimmed, wetlands will still retain some water quality and quantity function, although at a diminished level until the vegetation is completely reestablished. WSDOT will develop a project-specific plan before construction to identify how restoration will occur.

Erosion and sedimentation caused by project activities would increase the amount of sediment settling within wetlands and reduce the quality of habitat available for invertebrate life and habitat for plants. Also, loose sediment would reduce the potential water quality and quantity benefits provided by those wetlands. However, best management practices (BMPs) will be implemented as required in the WSDOT Highway Runoff Manual to minimize erosion and sedimentation during construction.

How will wetlands be permanently affected by the project?

To construct this project, 1.66 acres of wetland will be permanently filled. This affects 11 of the 29 identified wetlands as shown on Exhibits 5-9 and 5-10. Some of the affected wetlands will be completely filled, while others will be only partially filled.

Filling a portion of a wetland or altering its vegetation can reduce the wetland's capacity to store stormwater, filter pollutants, protect stream banks from erosion, and provide wildlife habitat. Of the eleven affected wetlands, the project will fill two wetlands completely and ten wetlands partially. The largest wetland in the study area, Wetland 25L along SR 167, accounts for 60 percent of the total wetland fill. Wetland 1.7R is a narrow ditch-associated wetland, which accounts for 28 percent of the total affected area. This wetland will be completely filled to allow for the additional northbound lane along I-405.

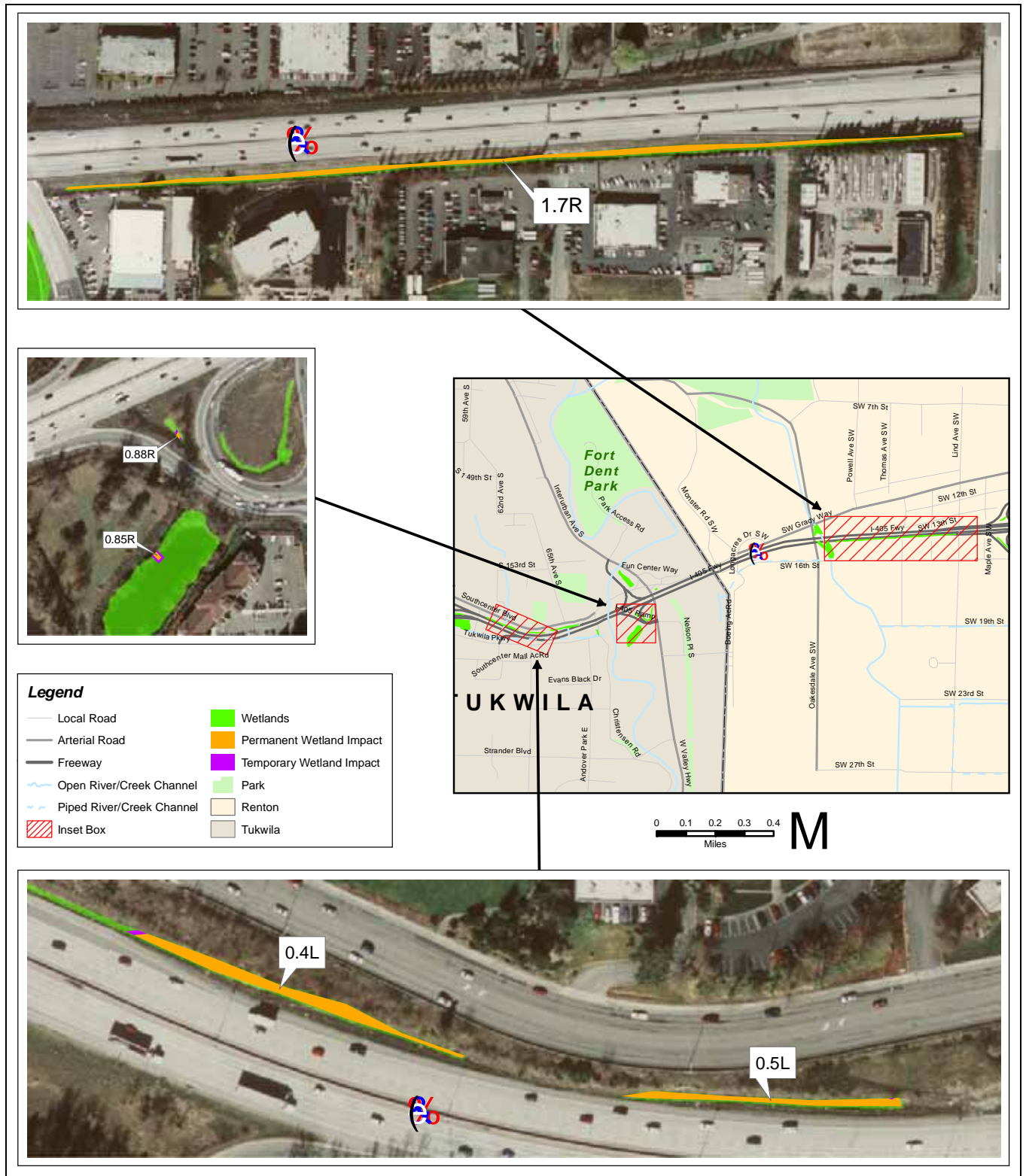


Exhibit 5-9. Wetland Effects (from I-405/I-5 Interchange to I-405/SR 167 Interchange)

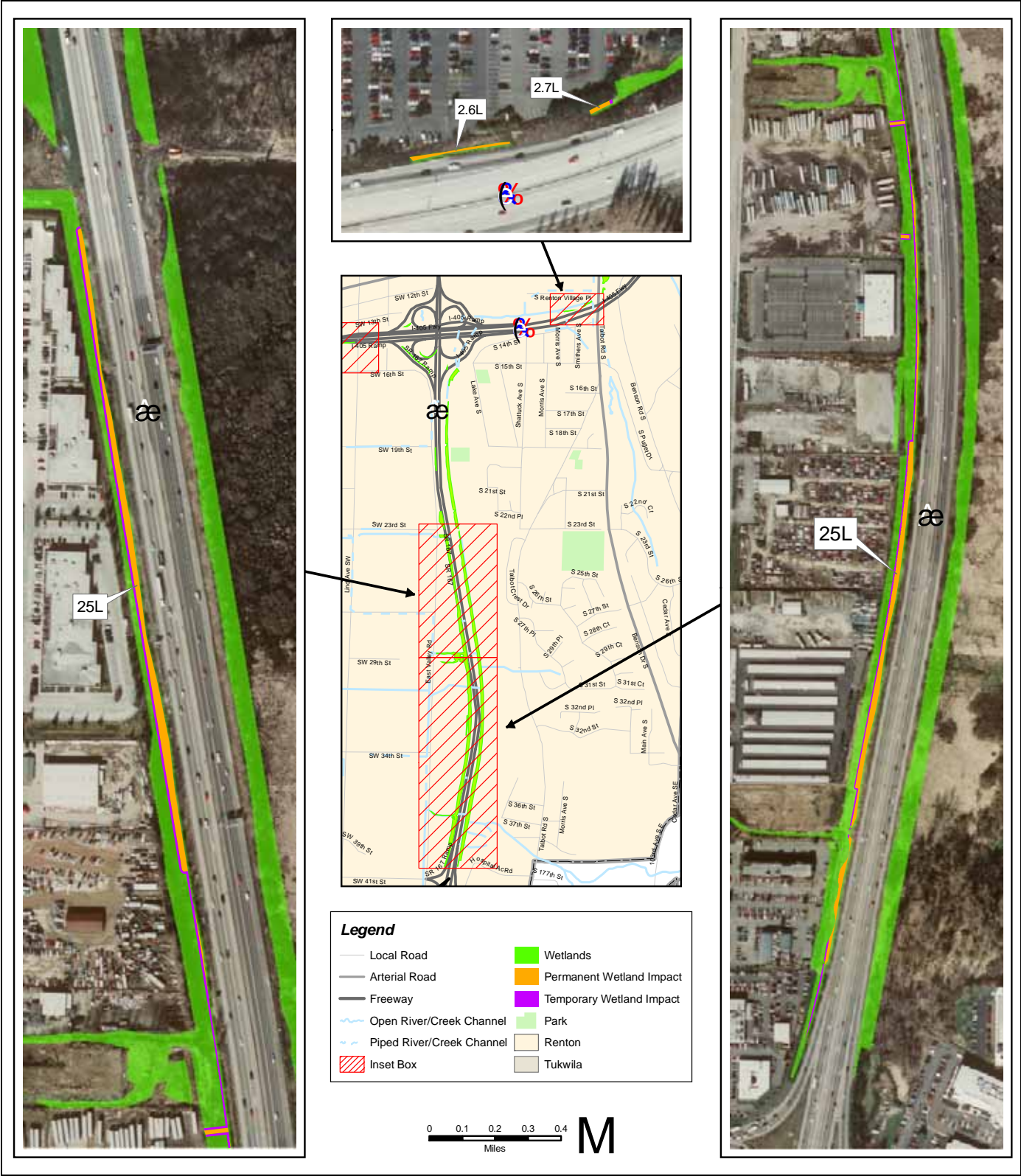


Exhibit 5-10. Wetland Effects (I-405/SR 167 Interchange to I-405/SR 169 Interchange)

What measures are proposed to avoid, minimize, and mitigate effects to wetlands?

During project design, the I-405 Project Team reviewed the wetland mapping and compared it to their current footprint of the road improvements. Where feasible, the team modified the footprint to avoid or minimize effects to wetlands. In most cases, permanent effects to wetlands were avoided by adjusting the project footprint. In some cases, effects were limited by adding a retaining wall versus using a sloping roadway edge that would need more space.

Unavoidable wetland fills will be mitigated by constructing or enhancing other replacement wetlands to meet the “no net loss” guidance mandated under federal and state executive orders. WSDOT, in partnership with the City of Renton, is developing a mitigation bank called the Springbrook Creek Wetland and Habitat Mitigation Bank. The mitigation bank has the advantage of creating wetlands that contribute to aquatic ecosystem functions that are lacking in the local watershed while providing safe, high-quality habitat away from the dangers of a roadside location. The 1.66 acres of permanent effects to wetlands for the Renton Nickel Improvement Project will be compensated by credits from the bank.

What is “no net loss”?

Washington State Executive Order 90-04 mandates that the actions and activities of state agencies achieve a goal of “no net loss” of wetland acreage and function. In recognition of the “Wetlands Executive Order,” WSDOT has adopted the “no-net-loss” goal as agency policy.

To ensure no net loss to wetlands, WSDOT entered into an agreement with Ecology titled the *Implementing Agreement between the Washington State Department of Transportation and the Washington State Department of Ecology Concerning Wetlands Protection & Management* dated July 1, 1993.

What is a mitigation bank?

A mitigation bank site is a property purchased and developed to earn credits to compensate for adverse effects to wetlands due to development activities of other agencies, utilities, or in specific instances, private sector developers. Credits are generated through the restoration, creation, and/or enhancement of wetlands.

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